

Remark

Applicants respectfully request reconsideration of this application as amended. Claims 50, 53, 55, 60 and 78 have been amended. Claims 1-39 have previously been cancelled. Therefore, claims 40-97 are present for examination.

35 U.S.C. §112 Rejection

The Examiner has rejected claims 40, 60 and 78 under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. The Examiner suggests that "it is incomplete how the sequentially transmitting...generates a desired radiation level at a number of location."

The Examiner has understood that sequentially transmitting the plurality of processed signals generates the desired radiation levels. The reason this occurs, however, is because of the iteratively processing through a plurality of signal processing procedures. The "generating" limitation is intended to limit the "iteratively processing" operation. There is no additional step required.

The Examiner has cited to MPEP 2172.01 Unclaimed Essential Matter. Note that this section refers to "matter disclosed to be essential to the invention as described in the specification or in other statements of record." Neither the specification, nor any other statements of record have disclosed that some step, absent from Claim 40, is essential. Accordingly, this rejection is, respectfully, traversed.

Claim Objections

Claims 50-55 are objected to under 37 C.F.R. 1.75 (c), as being in improper dependent form for failing to further limit the subject matter of a previous claim. This rejection is not understood. Claim 45 refers to the transmission characteristics of the [transmitted processed] signals, while Claim 50 refers to weight vectors and radiation patterns. However, in the interests of expediting examination, the dependencies have been modified to depend from Claim 44.

35 U.S.C. §102 Rejection

Ottersten

The Examiner has rejected claims 40-43, 57-66, 78-83, and 94-97 under 35 U.S.C. §102 (e) as being anticipated by Ottersten et al., U.S. Patent No. 5,828,658 ("Ottersten"). Previously Applicants had argued that Ottersten does not show iteratively processing a signal in the context recited e.g. in Claim 40. In the present action, the Examiner has countered by citing Col. 25, line 60 to Col. 26, line 10. The Examiner has also pointed to elements 43 and 44 in Figure 8. However, the diagram is too general to show whether iterations of processing are applied to one signal.

Turning to the cited section, it begins that "the system can be designed to continuously update the spatio-temporal signatures of the remote terminals in a 'closed loop' manner." Looking e.g. at Claim 40, the signal is iteratively processed to generate a plurality of processed signals. These processed signals are then transmitted. The spatio-temporal signatures on the other hand are not transmitted, they are an intermediate set of values that is used in determining antenna weights, see e.g. Col. 13, line 67 to Col. 14,

line 7, see also Equation 31 in Col. 20, and Claim 54. Col. 18, line 42 also mentions that spatio-temporal signatures may be used to determine which communications channel a remote terminal should use.

Since spatio-temporal signatures are not transmitted, any teaching regarding them is not relevant to the recitation of iteratively processing a signal as recited in Claim 40. The same section also refers to training sequences that are transmitted, however, these are predetermined and there is no suggestion that these are iteratively processed.

The Examiner has also reproduced the previous rejection to Claim 40. As noted in the previous response, the word "iteratively" from Claim 40 is omitted from the rejection and, indeed, the Examiner's cited sections of Ottersten do not show "iteratively processing a signal." Ottersten does show processing multiple copies of the signal to produce multiple transmit signals, one for each element of the antenna array. Obviously, this is not the same thing.

An example of iterative processing is provided in the present application starting on page 23, line 15. As explained on page 24, at 5 and 6, the process is iterative in that a difference is compared to a threshold and if the test is not passed, then the code vector is replaced and the processing goes back to step 2. No such iterative process has been cited by the Examiner in Ottersten. Accordingly, the rejection is respectfully traversed.

Clearly Applicants have failed to understand how the Examiner is reading "iteratively processing" onto the reference. Applicants welcome a telephone call to the undersigned to explain this, if the Examiner finds that such a conversation would be helpful.

Allowable Subject Matter

Claims 44-56, 67-77, and 84-93, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims remain in the application.

Conclusion

Applicants respectfully submit that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicants respectfully request the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

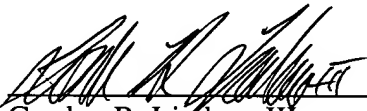
The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Request for an Extension of Time

Applicants respectfully petition for a One Month extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a). Please find a check in the amount of \$120.00 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension. Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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